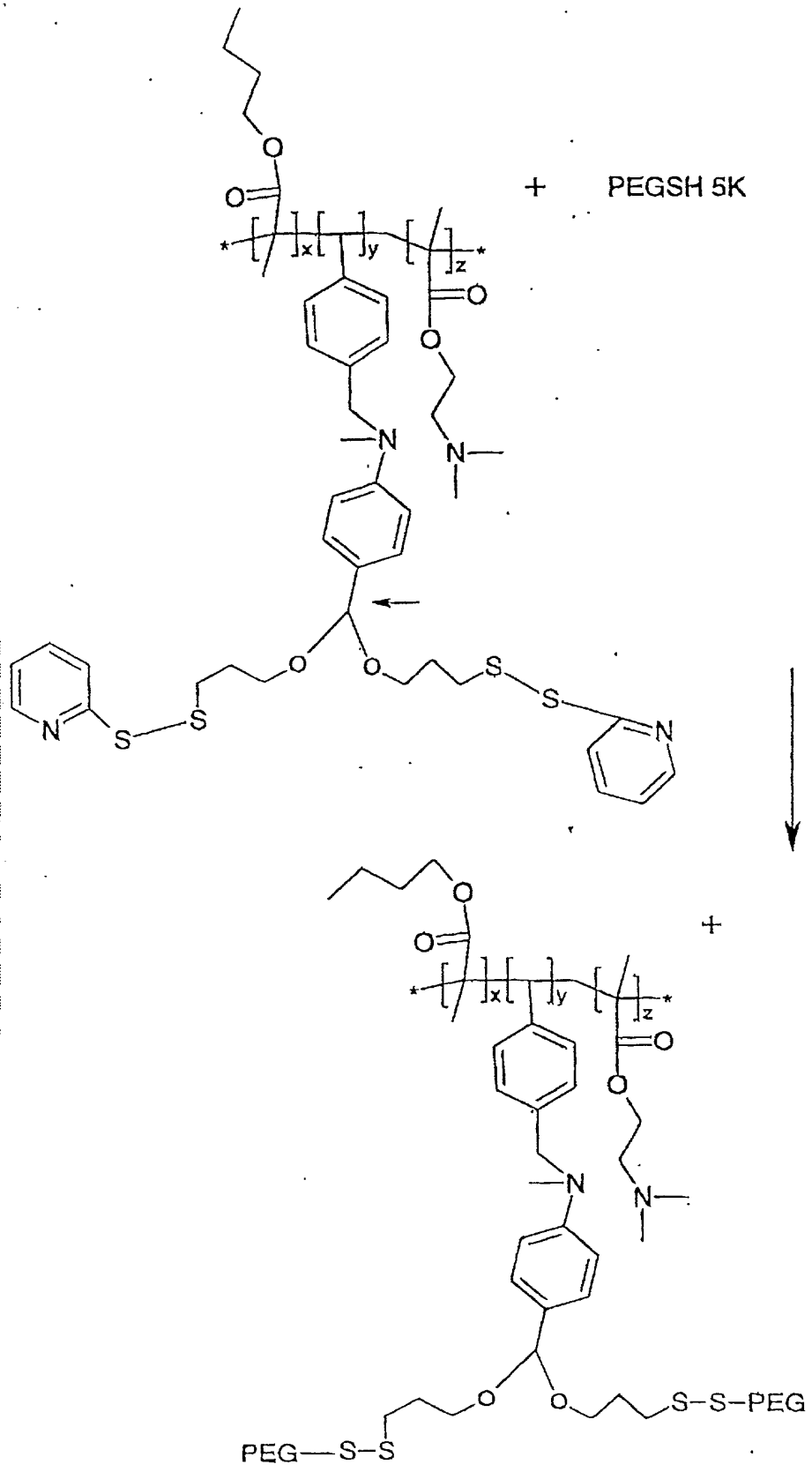
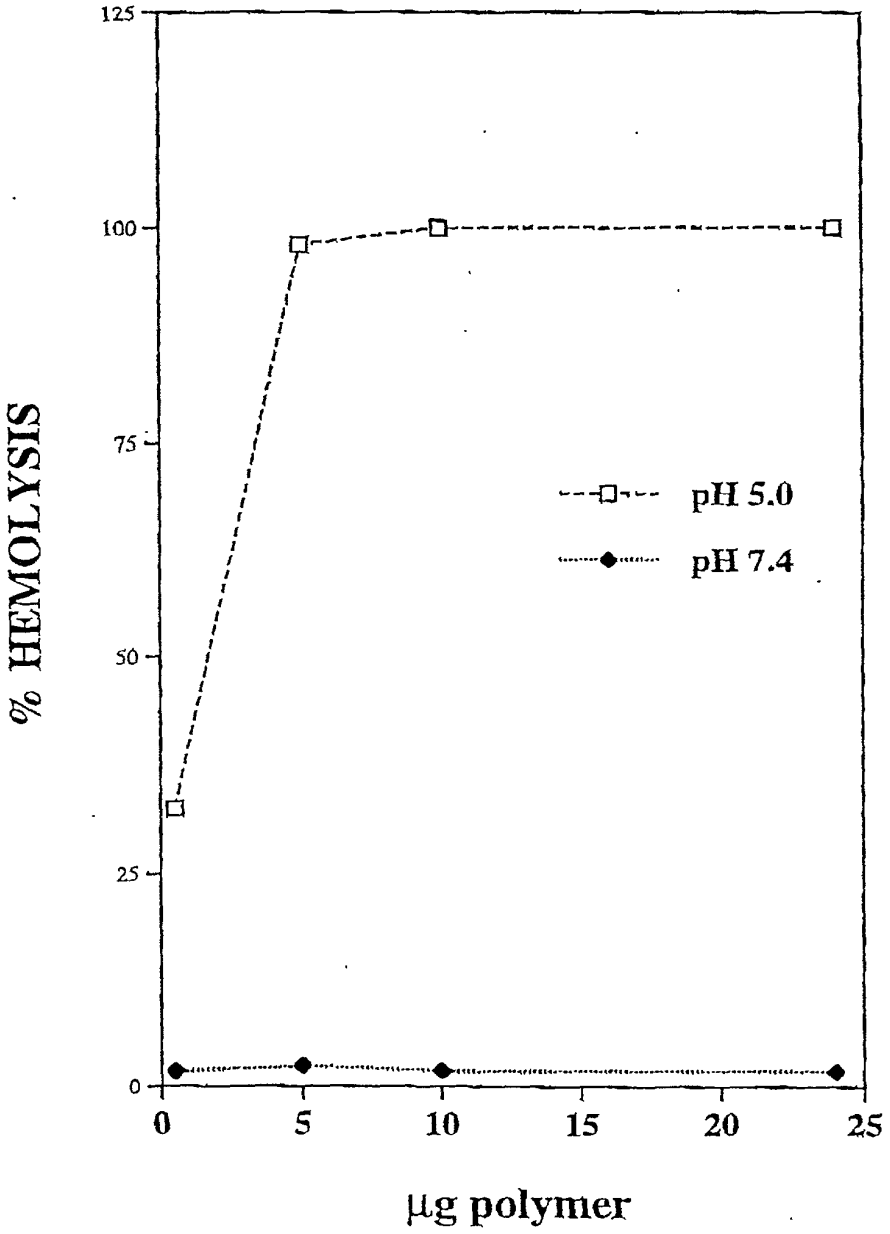


FIGURE 1

HEMOLYSIS BY ACETAL-PEG-COPOLYMER

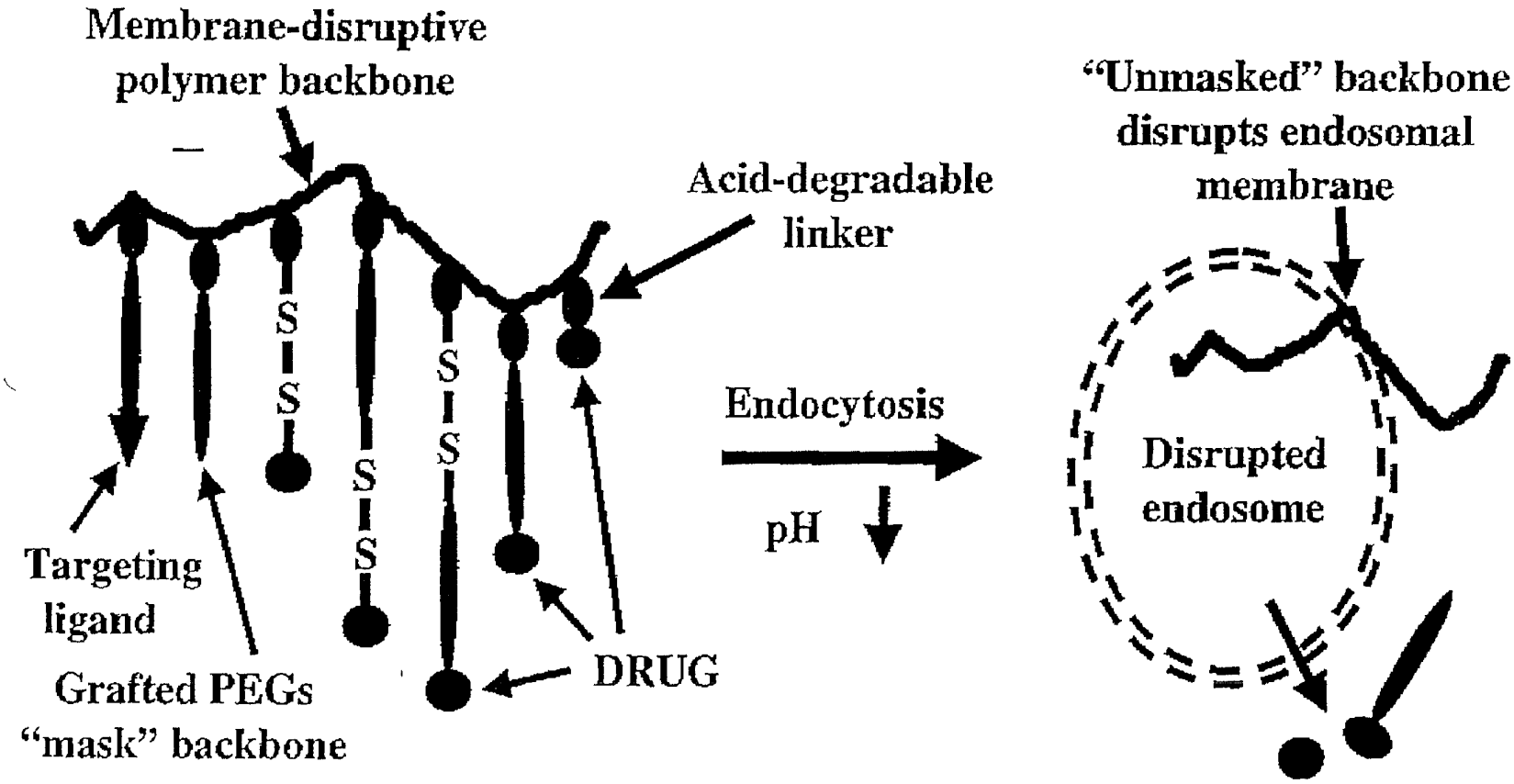


Experimental Conditions
(1) 2% RBCs in 1ml PBS buffer
(2) Incubation temperature 37C
(3) Incubation time 20 minutes
(4) Experiments done in triplicate STD < 2%

FIGURE 2

Figure 3

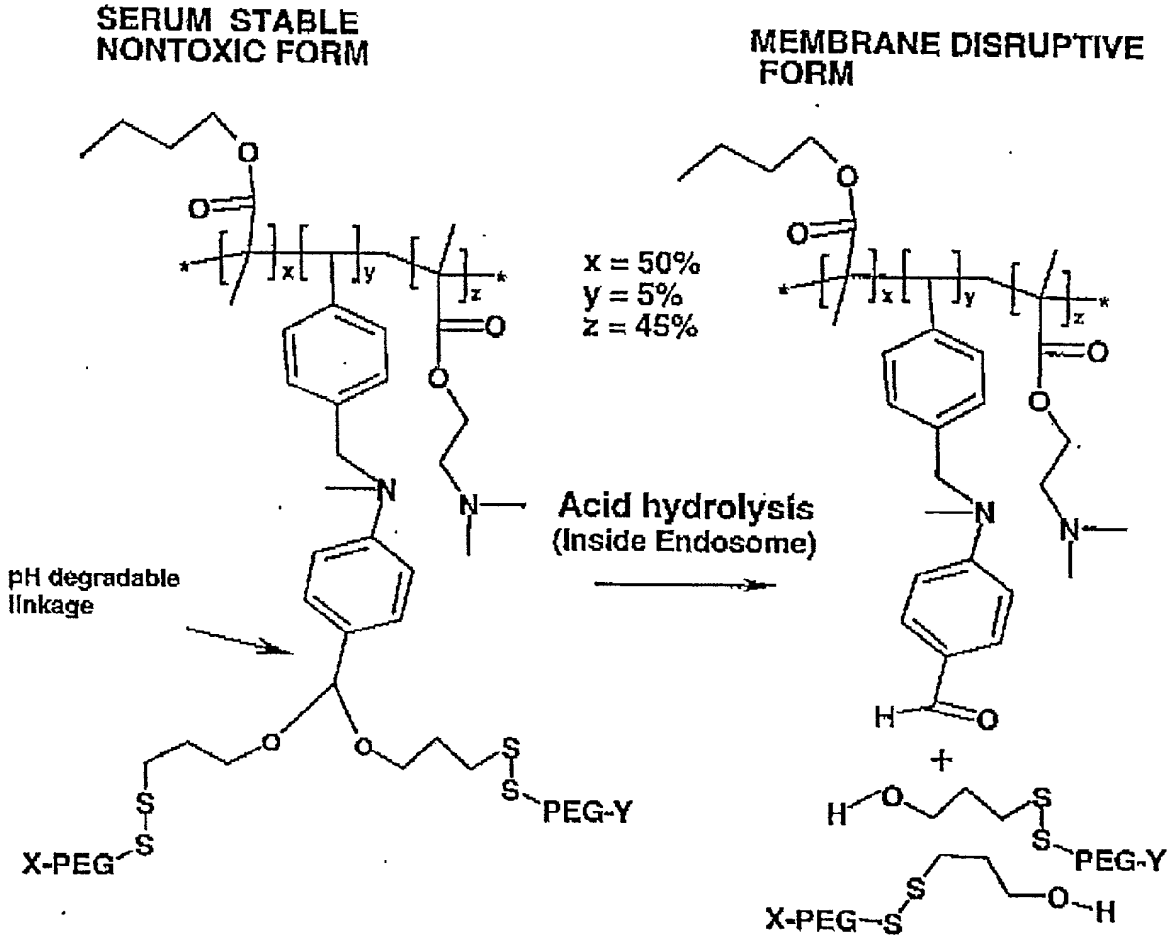
Acid-Degradable Bonds Enhance Endosomal Drug Release of Targeted Polymer Carrier



DRUG (●) may be conjugated, or complexed directly, or linked by PEG, -S-S- or (PEG/-S-S-) bonds to backbone, each via an acid-degradable bond.

Free DRUG or PEG-DRUG delivered into cytoplasm.

Figure 4



Encrypted Polymer E1: X = Y = Methoxy
Encrypted Polymer E2: X = Fluorescein, Y = Lactose
Encrypted Polymer E3: X = Hexalysine, Y = Lactose

Figure 5

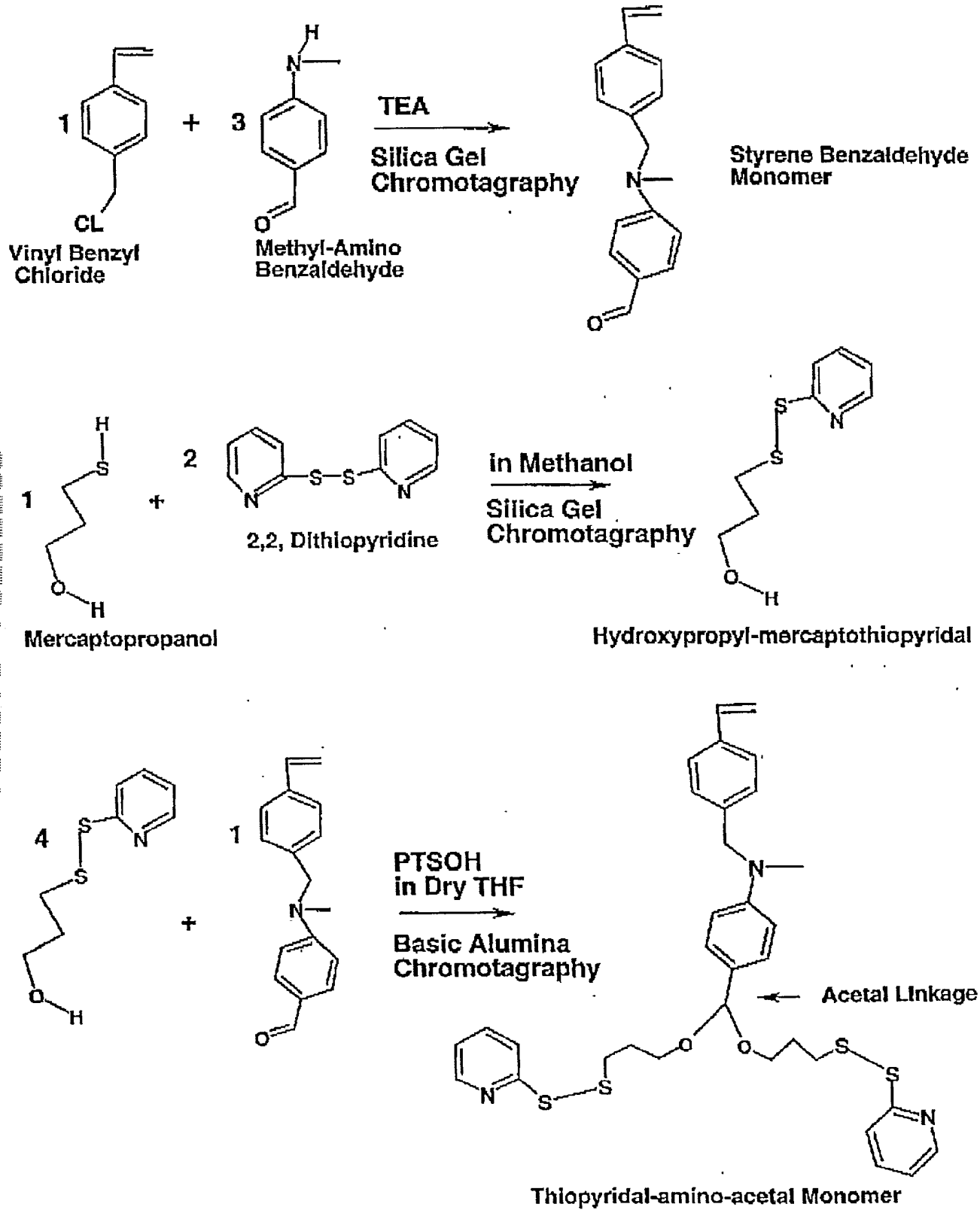
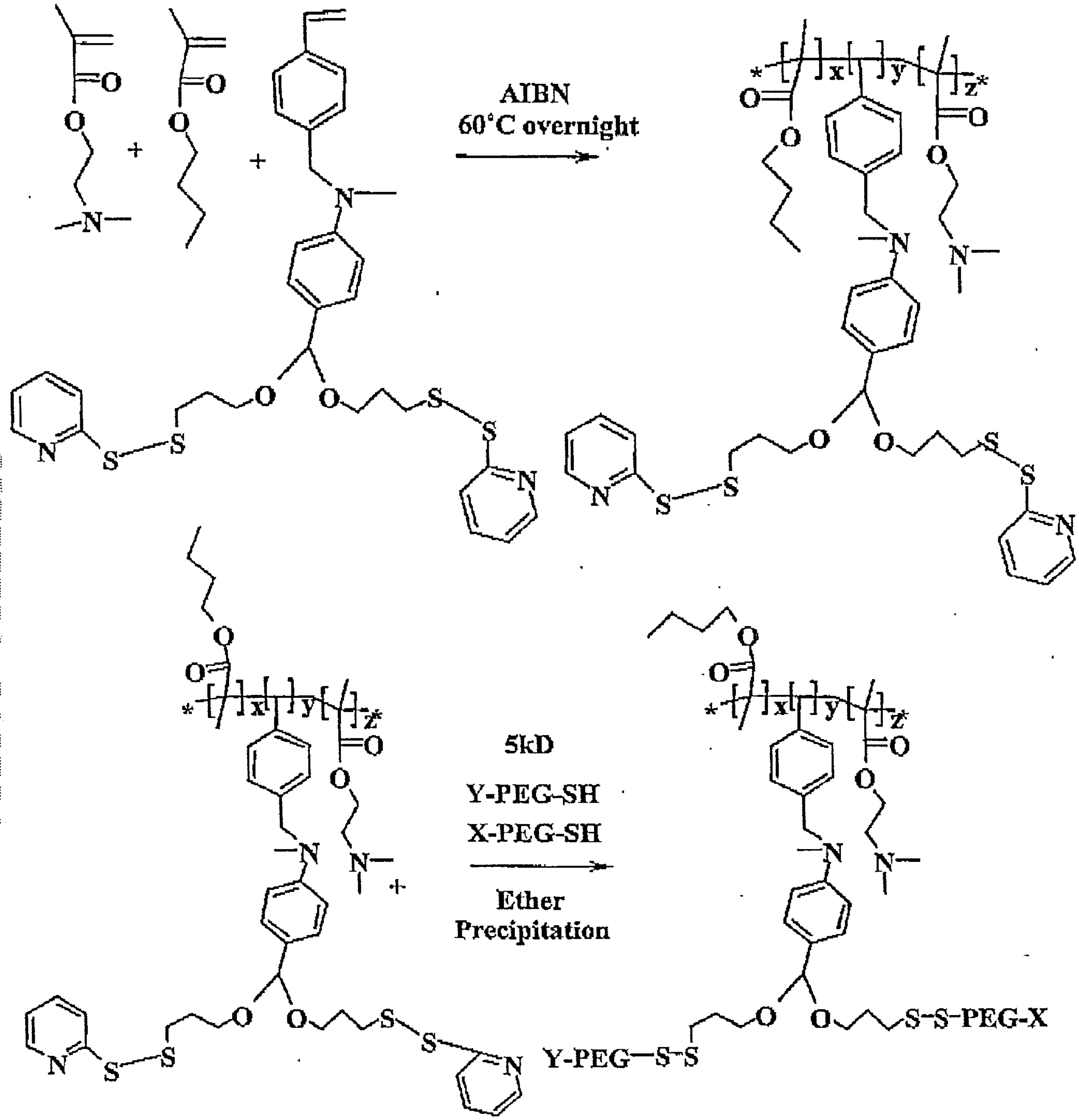

1
+
3
TEA
Silica Gel
Chromotagraphy
Styrene Benzaldehyde
Monomer
CL
Vinyl Benzyl
Chloride
Methyl-Amino
Benzaldehyde
2
in Methanol
Silica Gel
Chromotagraphy
2,2, Dithiopyridine
Mercaptopropanol
Hydroxypropyl-mercaptothiopyridal
4
PTSOH
in Dry THF
Basic Alumina
Chromotagraphy
Acetal Linkage
Thiopyridal-amino-acetal Monomer

Figure 5 Continued



Encrypted Polymer E1: X = Y = Methoxy
Encrypted Polymer E2: X = Fluorescein, Y = Lactose
Encrypted Polymer E3: X = Hexalysine, Y = Lactose

Figure 6A

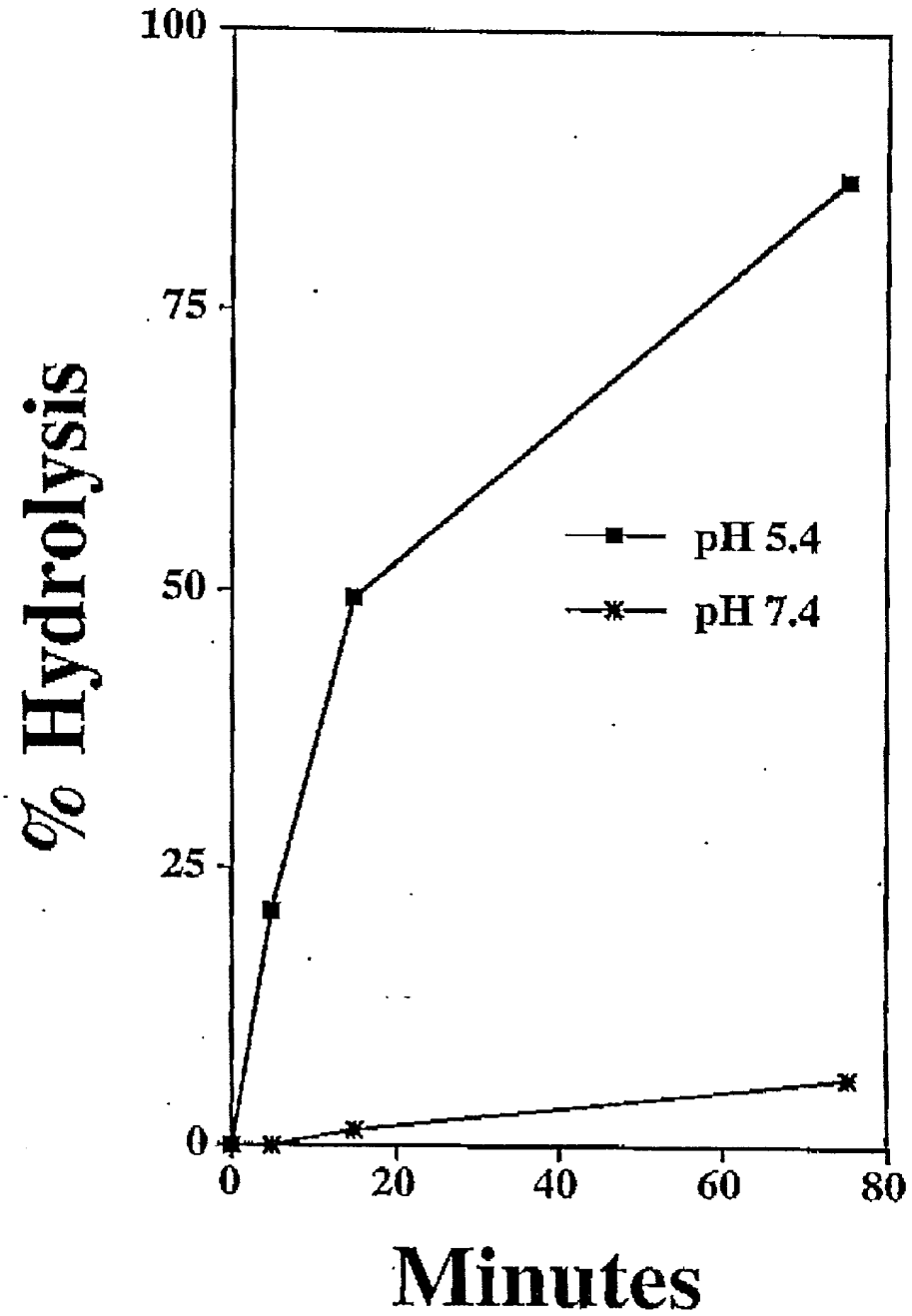


Figure 6B